

CLAIMS

1. A method of producing an optical element comprising applying a paste containing at least one compound selected from
5 lithium compounds, potassium compounds, rubidium compounds, cesium compounds, silver compounds, and thallium compounds, an organic resin, and an organic solvent to a glass substrate containing an alkali metal component as a glass component and then performing heat treatment at a temperature below the
10 softening temperature of the glass substrate.

2. The method according to claim 1 wherein the glass substrate is made of a glass containing at least 2% by weight of alkali metal, calculated on an oxide basis, the glass being a silicate glass, borosilicate glass, phosphate glass, or
15 fluorophosphate glass.

3. An optical element produced by the method of claim 1 or 2.

4. The optical element according to claim 3 which is a graded refractive index lens, a graded refractive index lens
20 array, an optical waveguide, or a diffraction grating.

5. The optical element according to claim 4 which is a slab optical waveguide or a channel optical waveguide.